

WHAT IS CLAIMED IS:

- 1 1. A video system comprising:
 - 2 a system controller module operative to receive and process one or
 - 3 more input signals to provide one or more video files;
 - 4 an internal fixed storage device operatively coupled to the system
 - 5 controller module, wherein the internal fixed storage device is configured to
 - 6 store the one or more video files from the system controller module; and
 - 7 an internal removable media storage device operatively coupled to
 - 8 the system controller module, wherein the internal removable media storage
 - 9 device is configured to store the one or more video files from the system
 - 10 controller module or the internal fixed storage device.
- 1 2. The video system of claim 1, wherein the system controller module
- 2 includes:
 - 3 a tuner configured to receive and process the one or more input
 - 4 signals and provide video information,
 - 5 a processing module coupled to the tuner, wherein the processing
 - 6 module is configured to receive and process a signal from the tuner and to
 - 7 provide an output video signal, and
 - 8 a memory unit configured to store the one or more video files.
- 1 3. The video system of claim 2, wherein the system controller module
- 2 further includes:
 - 3 a decoder coupled to the tuner, wherein the decoder is configured to
 - 4 receive and decode video data from the tuner to provide a decoded file.

- 1 4. The video system of claim 3, wherein the system controller module
2 further includes:
3 a coder/decoder (Codec) operatively coupled to the decoder, wherein
4 the coder/decoder is configured to receive and compress the decoded file to
5 provide a compressed video file suitable for storage to the internal fixed
6 storage device or the internal removable media storage device.
- 1 5. The video system of claim 4, wherein the Codec is configured to
2 compress the decoded file in accordance with a particular compression
3 algorithm selected from among a plurality of available compression
4 algorithms.
- 1 6. The video system of claim 5, wherein the particular compression
2 algorithm is user-selectable.
- 1 7. The video system of claim 1, wherein the system controller module is
2 further configurable to receive and process one or more video files from the
3 internal fixed storage device or the internal removable media storage device.
- 1 8. The video system of claim 1, wherein the system controller module is
2 further configurable to capture an interval of a particular input signal and to
3 store the captured data within a video file suitable for replay at a later time.
- 1 9. The video system of claim 8, wherein the interval of a particular input
2 signal is user-selectable.
- 1 10. The video system of claim 1, wherein the system controller module is
2 further configurable to capture selected sections of a particular input signal
3 and to store the selected sections of a particular input signal within a video
4 file suitable for replay at a later time.

1 11. The video system of claim 10, wherein the selected sections of the input
2 signal do not include advertisements.

1 12. The video system of claim 1, wherein the system controller module is
2 further configurable to manipulate sections of a particular video file via a set
3 of functions.

1 13. The video system of claim 12, wherein the set of functions includes
2 functions selected from the group of functions consisting of cut, copy, paste,
3 or a combination thereof.

1 14. The video system of claim 1, wherein each video file is stored to the
2 internal fixed storage device as one or more records.

1 15. A method for storing video data to a storage device, comprising:
2 forming one or more records implemented as a link list, wherein each
3 record includes a first field for storing an address of a next record, if one
4 exists, and a second field for storing at least a portion of the video data.

1 16. The method of claim 15, wherein the one or more records are
2 implemented as a doubly-linked list, and wherein each record further
3 includes a third field for storing an address of a previous record, if one exists.

1 17. The method of claim 15, further comprising:
2 writing records for a first video file to a first area of the storage
3 device; and
4 reading records for a second video file from a second area of the
5 storage device.

1 18. The method of claim 17, wherein the writing and reading functions are
2 substantially performed concurrently.

1 19. The method of claim 18, further comprising:
2 synchronizing the writing and reading of the storage device.

1 20. The method of claim 15, wherein the storage device includes a plurality
2 of platters, each platter includes a plurality of tracks, and corresponding
3 tracks on the plurality of platters comprise a cylinder.

1 21. The method of claim 20, further comprising:
2 reading records for a first video file from a particular track on a first
3 platter of a particular cylinder; and
4 writing records for a second video file to a corresponding track on a
5 second platter of the particular cylinder.

1 22. The method of claim 20, wherein each track includes a plurality of
2 sectors, and wherein each record is stored to one or more sectors on one or
3 more tracks.

1 23. The method of claim 22, wherein each record is partitioned into one or
2 more sections, and wherein each section is stored to a respective sector of the
3 storage device.

1 24. The method of claim 22, wherein the one or more sections for each
2 record are implemented as a doubly-linked list.

1 25. The method of claim 22, wherein each record is stored as a selectable
2 number of sectors of the storage device.

- 1 26. A video recording storage system, comprising:
2 a media content delivery system;
3 a first switch, coupled to the media content delivery system;
4 a second switch including a cable modem termination system,
5 wherein the second switch is coupled to the first switch;
6 a block splitter, coupled to the second switch and the cable modem
7 termination system;
8 one or more cable modems, wherein the one or more cable modems
9 are coupled to the block splitter;
10 one or more personal computers, coupled to the one or more cable
11 modems, respectively; and
12 one or more displays, coupled to the one or more personal computers,
13 respectively.
- 1 27. The video recording storage system of claim 26, further comprising a
2 cable modem and a PowerTV operating system inside a commercially
3 available system.